

What is claimed is:

1. An engine auxiliary drive for a motor vehicle with a toothed-gear drive, that has a first (1) and a second gear wheel (2) with tooth flanks (11, 12) that are meshed with each other, characterized in that the tooth flanks (11, 12) of the gear wheel (1, 2) are free or at least nearly free of involutes in the force transmission area (13), and transition from a concave area directly or at least nearly directly to a convex area, and that the first gear wheel (1) is made of plastic.
2. The engine auxiliary drive according to Claim 1, characterized in that the second gear wheel (2) is made of a material with greater strength than the first gear wheel (1).
3. The engine auxiliary drive according to Claim 1 or 2, characterized in that at least sections of the opposing tooth flanks (11, 12) of gear wheels (1, 2) have nearly the same curvature in their tooth flanks (11, 12).
4. The engine auxiliary drive according to one of Claims 1 through 3, characterized in that the concave area is situated in an area adjoining a tooth base (6, 8) and the convex area is situated in an area of the respective teeth (4, 5) adjoining a tooth crest (7, 9).

5. The engine auxiliary drive according to one of Claims 1 through 4, characterized in that the second gear wheel (2) is made of metal.

6. The engine auxiliary drive according to Claim 5, characterized in that the tooth thickness of the teeth (5) of the gear wheel made of metal (2) is less than the thickness of the teeth (4) of the plastic gear wheel (1).

7. The engine auxiliary drive according to one of Claims 1 through 6, characterized in that the gear wheel made of plastic (1) has a greater tooth width or tooth thickness on the pitch circle of the gear wheel (1) than the space width.

8. The engine auxiliary drive according to one of Claims 1 through 7, characterized in that the gear wheel made of metal (2) has a smaller tooth width or tooth thickness on the pitch circle of the gear wheel (2) than the space width.

9. The engine auxiliary drive according to one of Claims 1 through 8, characterized in that during the rolling off of the gear wheels (1, 2) there are always two or more teeth (4, 5) of the gear wheels (1, 2) meshed with each other.

10. The engine auxiliary drive according to one of Claims 1 through 9, characterized in that the plastic gear wheel (1) is an injection molded part that receives no additional treatment after the injection molding.

11. The engine auxiliary drive according to one of Claims 1 through 10, characterized in that the gear wheel made of plastic (1) is injection molded onto a hub or a

part of a shaft having raised parts and/or depressions on its outer circumference.

12. The engine auxiliary drive according to one of Claims 1 through 11, characterized in that it is intended for driving one or more balancing shafts (56, 57).

13. The engine auxiliary drive according to one of Claims 1 through 12, characterized in that the first (1) and second (2) gear wheels are designed as helical-toothed spur gears.

14. The engine auxiliary drive according to one of Claims 1 through 12, characterized in that the first (1) and second (2) gear wheels are designed as straight-toothed spur gears.

15. The engine auxiliary drive according to one of Claims 1 through 14, characterized in that the plastic for the first gear wheel (1) is a homogeneous plastic.